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POSTER PRESENTATION

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Prevalence of livestock associated MRSA in blood isolates

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Introduction / objectives

In the Netherlands there is an extensive reservoir of livestock associated methicillin-resistant *Staphylococcus aureus* (LA-MRSA) in pigs and calves. The aim of this study was to establish the prevalence of LA-MRSA in human blood isolates.

Methods

This study was based on data from the national antibiotic resistance surveillance (ISIS-AR) in The Netherlands. The 22 participating laboratories cover approximately 50% of all hospital beds. Data from 2008 through 2010 on *S. aureus* (SA) isolates were evaluated for methicillin resistance and *spa*-type, to identify LA-MRSA strains. Only the first isolate per patient was included. For this preliminary examination, we used tetracycline resistance as an indicator for LA-MRSA. In further analysis presented at the congress, *spa*-types will be included.

Results

The proportion of MRSA of all episodes of SA bacteremia was 1.5% (51/3355). Of the MRSA isolates with an antibiotic resistance profile, 17% were tetracycline resistant (8/48, 95%CI 9-30%). The proportion of tetracycline resistance in MRSA isolates from other sources was 41% (872/2124, 95%CI 39-43%, chi-square blood vs non-blood $p < 0.0001$). Extrapolation results in an average annual incidence of 5.3 patients with LA-MRSA bacteremia in The Netherlands.

Conclusion

The current annual incidence of LA-MRSA bacteremia is low. Tetracycline resistant MRSA is significantly less prevalent in MRSA blood isolates compared to non-blood isolates. This can be the result of an excessive screening

regime resulting in overrepresentation in non-invasive isolates or a decreased virulence of the livestock associated strains.

Disclosure of interest

None declared.

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